Volunteer Firemen

APRIL

1941

NATIONAL FIRE PROTECTION ASSOCIATION
INTERNATIONAL
60 Batterymarch Street Boston, Massachusetts

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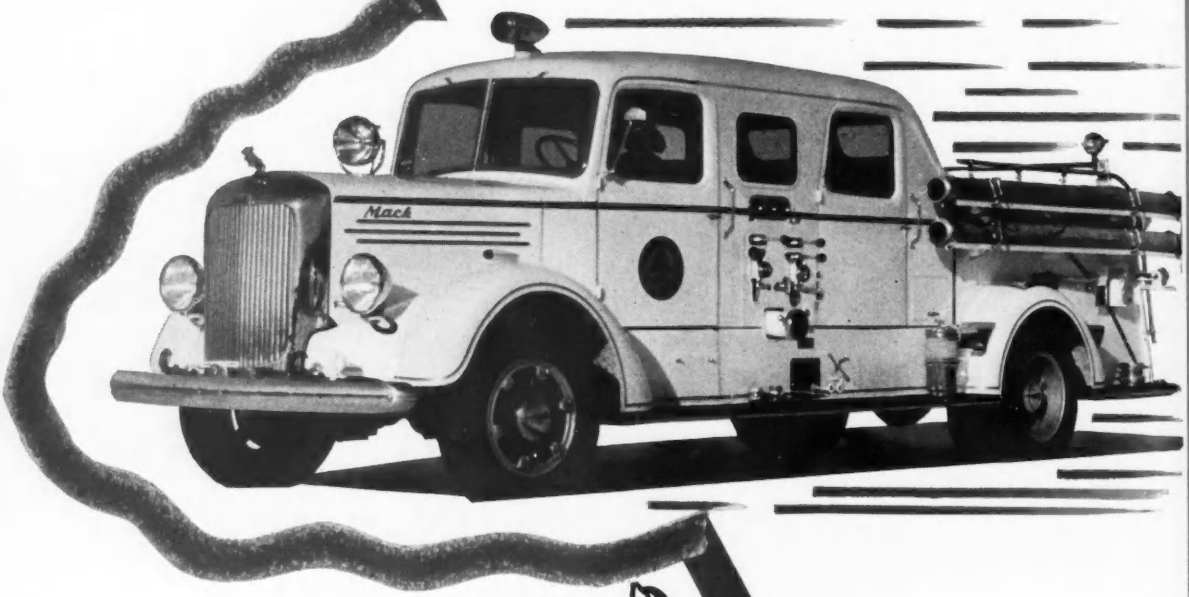

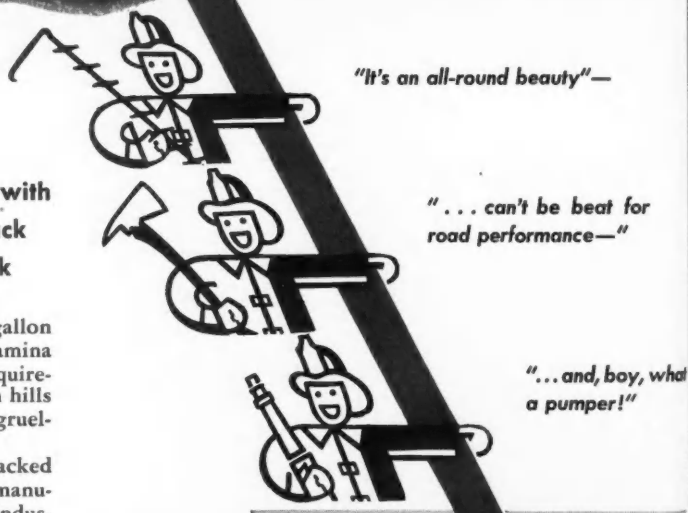

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Volunteer Firemen

Volume 8 Number 4

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CONTENTS

For April, 1941

	Page
Fire Department Discipline, by Major Stuart McLeod	4
Exposure Fire Problem	5
Progress of Your Fireworks Laws	5
Nozzle and Hose Reactions, by Robert S. Moulton	6
Strand Theatre Tragedy, Brockton, Mass.	7
Salaries and Hours Worked in New England Fire Departments	7
New Chicago Squad Trucks	7
How Would You Fight The Fire?	8
Training Notes	9
Ohio's First Vocational Institute For Firemen	9
Ulster County, New York, Starts Training Course	9
Defense Notes	9
You're Invited to the 45th N.F.P.A. Annual Meeting, at Toronto	10
Ontario Issues New Defense Training Manual	10
Knoxville, Tenn., Plans To Sell Outside Aid	10
Chemical Extinguisher Association Elects	11
Water Bottle Starts Fire And Then Puts It Out	11
Fire Prevention Clean-Up Campaign	12
Home Inspection Report Blank For School Children	12
Butler, Pa., Has Big Fire	13
Safety Manual For Service Stations	13
Pyrene Prize Letter Contest	14

THE front cover picture (*The Providence Journal and The Evening Bulletin*) shows a fire that swept the Railway Express building at the Providence Union Station on the evening of February 18, 1941. The fire department thought they had a small fire in the building under control when flames which had spread through large underfloor areas suddenly enveloped the structure. So quickly did the fire spread that the department had difficulty in removing several pieces of apparatus near the building. The picture shows a hose stream protecting an aerial ladder truck against the terrific heat.

THE International Association of Fire Fighters, American Federation of Labor Building, Washington, D. C., last month announced a drive for the British Fire Fighters' Relief Fund. The announcement issued by the I.A.F.F. states, "Many of Britain's Fire Fighters have fallen in line of active duty. Many others have been maimed for life, many others are in hospitals. Meanwhile their wives and children are suffering.

"All moneys forwarded to the International Headquarters for the Fund shall be sent by check, post office money order or express money order, and made out to the British Fire Fighters' Relief Fund. The report should have the signature of the Chief of the fire department and other committee members responsible for raising such funds."

Every dollar of the fund will go directly to the relief of British fire fighters and their families, according to the announcement. The officers of the International will supervise and direct the campaign to raise funds. The officers will be bonded and the funds supervised by a certified public accountant. A committee from the British Fire Fighters' organization will distribute the funds to those needing aid in Britain.

ON the occasion of its 75th anniversary year the National Board of Fire Underwriters is conducting a jubilee celebration designed to educate the public in ways of fire prevention and fire control. Its purpose is to teach that a stronger national defense will result from a more adequate and more effective fire defense. The celebration will culminate in a two-day meeting in New York City on May 27-28, when leaders in the industrial, financial and cultural life of the country will publicly recognize the contributions which the National Board of Fire Underwriters has made to the development of the country. Among such contributions has been the establishment of Underwriters' Laboratories Inc. as a non-profit organization devoted to testing devices, systems and materials for safety. Another is the Board's arson department staffed by trained investigators to help local and state authorities track down incendiaries. Also, National Board engineers have made detailed inspections of fire hazard conditions and fire protection facilities in more than 400 cities of the United States.

A STRIKING Fire Defense Poster in red, white and blue is now available from the N.F.P.A. Executive Office, 60 Batterymarch Street, Boston, Mass. This poster, reproduced in miniature on this page, is designed to emphasize the importance of fire protection and fire protection to safeguard defense production from interruption by fire. The poster is 12 by 16 inches in size and is available at $1.50 per hundred, $10 per thousand. The panel at the bottom of the poster may be used for local imprinting if desired.

LAST month 8 departments with 87 men joined the Volunteer Firemen's Section for the first time. In addition 58 departments with 1,309 men renewed membership. This makes the total enrollment 702 departments and 14,573 men. The following departments are newly enrolled:

Rockland Fire Department, Rockland, Maine.

Winter Harbor Fire Department, Winter Harbor, Maine.

Dunbarton Volunteer Fire Department, Dunbarton, New Hampshire.

Deer Park Volunteer Fire Department, Deer Park, New York.

Miamisburg Fire Department, Miamisburg, Ohio.

Saegertown Volunteer Fire Department, Saegertown, Pennsylvania.

Maryville Fire Department, Maryville, Tennessee.

Greendale Fire Department, Greendale, Wisconsin.

THE estimated U. S. fire loss for February, 1940, according to the National Board of Fire Underwriters is $26,102,000. This figure is based on notices of incurred loss received by insurance companies, members of the board, plus an allowance for unreported and uninsured losses. The following table shows the losses for each month of 1940 and for the first two months of 1941.

	1940	1941
January	$36,260,650	$26,470,000
February	34,410,250	26,102,000
Total 2 months	$70,670,900	$52,572,000
March	29,788,800	. . .
April	26,657,190	. . .
May	23,446,590	. . .
June	19,506,000	. . .
July	20,322,800	. . .
August	20,722,100	. . .
September	21,198,000	. . .
October	22,091,140	. . .
November	23,440,000	. . .
December	28,617,000	. . .
Total 12 months	$306,469,520	

FIRE DEPARTMENT

Discipline

By Major Stuart McLeod,
United States Army

From an address presented at the Indiana Fire School at Purdue University and subsequently published with other selected fire school papers by W. A. Knapp, Director, Indiana Fire School, in a booklet issued by the Engineering Extension Department of Purdue University last year. The booklet is entitled Selected Papers from Indiana Fire Schools, Extension Series No. 46.

DISCIPLINE has been defined as "that mental attitude and state of training which renders obedience and proper conduct instinctive under all conditions. It is founded on respect for and loyalty to properly constituted authority."

Discipline is essential in every walk of life where one or more men must work under the direction of another. The greater the number of men involved, the greater the necessity for cooperation and discipline.

In every team you must have "team work." Imagine a football team in which each individual member decided what he would do without regard to what the others were doing and without regard to any plan. It is obvious that if a plan is to be followed, someone must say what that plan is to be, and it must be one man. In a fast-moving situation there is no time for debate, one "boss" must decide on the plan and then each member of the team must do his particular part. Committees and councils of war may be all right when there is plenty of time to discuss the situation; but in face of an emergency, whether it be in the midst of a battle or in the presence of a fire, some one man must make the decision and every member of the team must do his part without question. There is no time for a "soviet" in an emergency.

In every big business, factory, etc., is discipline. There are probably more rules in the operation of a railroad than the army ever thought about; but we must remember that the army and the fire department have one thing in common, which is not found in most of the other organizations. In a business it is possible to use the trial-and-error method, and if one method fails, the worst that happens is the loss of some money. In war and fire you must do the right thing the first time. There is no opportunity for rehearsal under the exact conditions that will prevail during an emergency; and, remember, there is no second prize in war or fire. Also, failure is fatal.

In addition, the kind of discipline that we have to have is "that state of training" that will result in the habit of obedience to orders' being stronger than the first law of nature. We must have a discipline that will insure that a subordinate will do what he is told even though obedience may result in the loss of his life. This is not achieved in a few days or a few weeks—it must be built up over a period of time.

It is impossible for one man to tell others how to handle men. Every man, both leader and led, has his own personality; and what will work with some people will not work with others. You must study your individual men—also yourself. If you are not getting the results for which you hope, make sure that you are not the one who is to blame. Most fire chiefs have been handling men for years, and I hesitate to try to tell you how to do your job; but there are certain principles that the army has found to be important and I will mention a few of them in the hope that you may get some benefit out of one or more.

ONE of the strongest human reactions is pride. Pride in self and pride in one's organization. If you can build up a feeling of pride among your men, you have gone a long way towards getting an organization that can do anything. If your men feel that they can accomplish anything, usually they can. When you see an organization of men who are "cocky," you will usually find that it is a good organization. An inferiority complex is fatal.

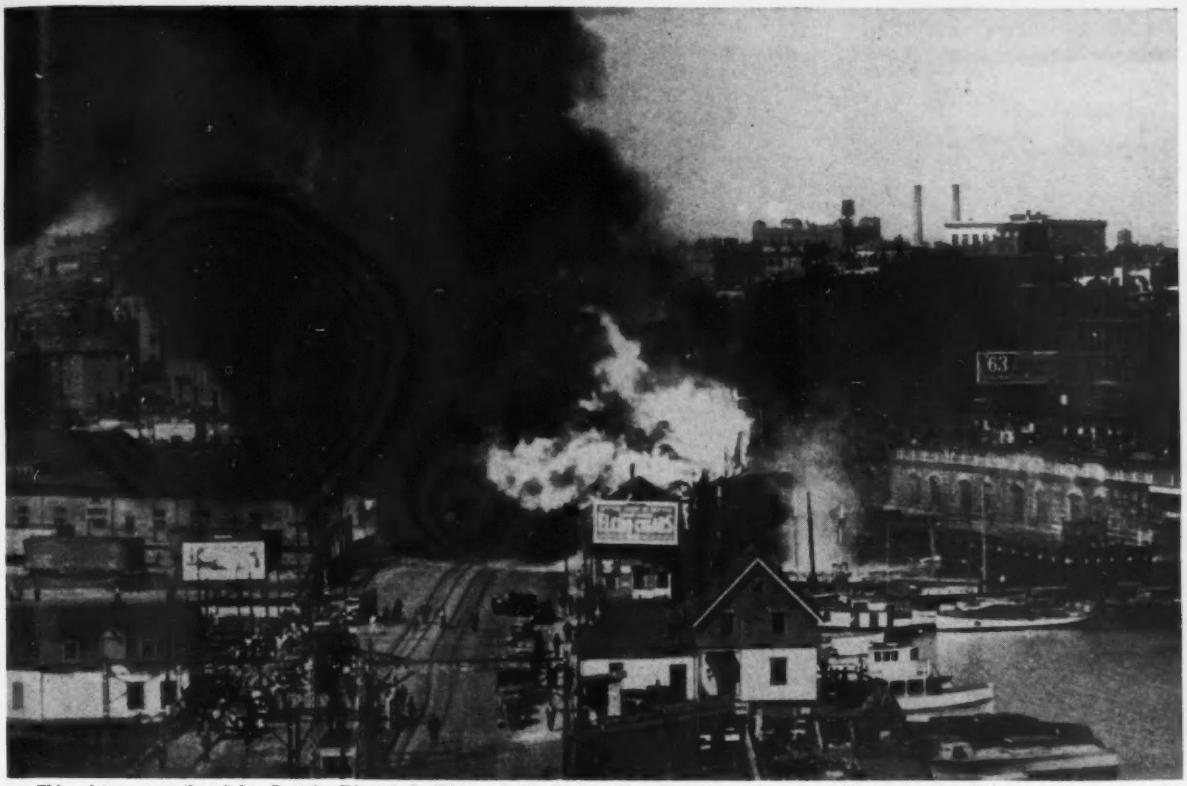
Many men are strongly influenced by the old "fear of punishment or hope of reward." Punishment may take many forms, from disapproval of one's acquaintances to actual loss of something which one values, money or a job, for instance. To be effective, punishment should be prompt and just—and then forgotten.

You frequently have occasion to issue orders. Make it a rule that you never back down on an order. Once you have given it, insist that it be carried out. If you get in the habit of allowing your men to disobey your orders if they see fit, you will speedily arrive at the point where they will disobey all of them. No matter how unimportant the order, it must be enforced or revoked. We have all seen the results of laws that could not be enforced, or were not enforced. They speedily lead to a disrespect for all laws. The result is that you have to be careful not to issue an order that you cannot, or do not desire to, enforce.

Never change an order if it can possibly be avoided. There is an old army saying that the worst plan, properly carried out, is better than the best plan not executed. Order, counter-order, disorder. Every time you change an order after its issue, someone misunderstands or doesn't receive the counter-order; and disorder results and you very quickly lose the confidence of your subordinates. Once they learn that, when you tell them to do something, there is no alternative from obedience, they will form the habit of prompt response. Once they learn that if they put off complying with your instructions those instructions will probably be changed, they will always hesitate.

General Heintzelman once said, "The best order ever gotten out is merely evidence of good intentions." After you have given an order, you must check and double check to see, first, that it is understood and, second, that it is actually being carried out. If a building burns to the ground because one of your companies didn't get there, it doesn't do much good to be able to say, "I told them to go." It is your responsibility to see that they get there.

Don't make the common mistake of trying to do everything yourself. If one man was enough to extinguish a fire, your city wouldn't employ a whole department. You may be the best man in your department and you may be able to do more work than any five men under you, but you cannot do as much as ten or twenty; and to have the leader working while six of his men watch him is not efficiency. If you want to be the "worker," be the worker (and draw pay accordingly); but if you are to be the leader—lead. You can accomplish far more by standing and supervising the work of your men than you can by trying to do it all yourself; and you cannot plan your next move intelligently if you are up in a smoke-filled room handling a hose. There may be occasions of extreme emergency when the actual presence and action of the leader are necessary, but as a rule these occasions are rare and you have to use your judgment to decide when that occasion has arisen; but remember that every time you do "jump in" you are going to have to neglect some other part of your duty.



This picture contributed by Captain Edward J. White of the Boston Fire Department is an excellent example of how great an exposure problem fire departments may have to face when they first reach a fire. This picture of a waterfront fire was taken about the time the first companies arrived. Although the fire occurred in a busy district during a clear afternoon when reasonably prompt discovery should have been expected, the building where the fire started was completely involved when firemen arrived from nearby stations. Note the effect of the radiated heat on the bridge abutments at the right. Although across a wide street, the freight shed at the left of the picture was damaged before apparatus responding to four alarms could bring the blaze under control.

WHEN you assume charge of an organization of human beings, you must remember that nobody else will do a thing exactly the way you would have done it yourself unless you have carefully trained him in that particular action. Consequently, you are faced with two alternatives: either do everything yourself or recognize that you must accept results that are not exactly what you expected. There are usually several ways to do anything, and just because one of your subordinates does something in a way that is not exactly what you expected, don't jump to the conclusion that he is all wrong. His way may be better than yours. You have to use your judgment to decide whether his way is satisfactory or not. If it isn't, that is a matter of training. In criticising your men, differentiate between errors of judgment and deliberate disobedience. When a man doesn't do something you expected, be sure that the fault lies with him and that it isn't due to your instructions' not being clear. There is an old army saying that "an order that can be misunderstood, will be misunderstood."

One of the best ways to train is to have a discussion after an event, while it is still fresh in the minds of everyone concerned, and to try to find out why things went wrong. In running these "critiques" don't be too small to ask the opinions of others and, if you find that you made a mistake, don't be afraid to admit it. You don't know everything, and someone else may have an idea that has not occurred to you. However, don't allow these critiques to degenerate into a fight, and always make it clear that, although you are willing to receive suggestions, yours is the responsibility and that when you have made a decision, it goes and goes without question.

Never reprimand or criticize a subordinate in the presence of his subordinates. If you reprimand the officer of one of your companies in the presence of his men, you always undermine his prestige and weaken their faith in him. Take him off to one side and tell him what you have to say.

In conducting your training remember that, in general, there are two types of humans: those who learn through their ears and those who learn through their eyes. You will reach both kinds if you make it a rule to, first, tell them what to do; second, show them what to do; and third, make them do it. In all your training, stress dependability.

Progress of Your Fireworks Laws

AT the time of going to press, word has been received that Ohio has become the tenth state to adopt legislation based on the N.F.P.A. Model State Fireworks Law. Similar bills have been introduced in the current Legislatures of the thirteen states listed below:

Arizona	**House Bill 5**
Connecticut	**Senate Bill —**
Illinois	**House Bill 70**
Kansas	**House Bill 65**
Maine	**House Bill —**
Maryland	**House Bill 29**
Massachusetts	**House Bill 1651**
Minnesota	**House File 47**
Missouri	**—**
New Hampshire	**House Bill 267**
North Dakota	**House Bill 121**
Rhode Island	**—**
Wisconsin	**Bill 429A**

Firemen in states where these fireworks bills have been introduced are urged to give support. Effective aid may be rendered by writing to your representatives and senators at the State Capitol asking them to speed the passage of these bills.

A resolution favoring the passage of the Model State Fireworks Law in the various states was recently passed by the General Federation of Women's Clubs.

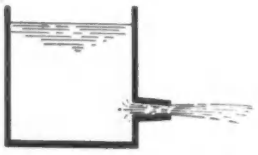
NOZZLE AND HOSE REACTIONS

By Robert S. Moulton,
N.F.P.A. Technical Secretary

Firemen know that holding a hose nozzle under pressure is real work but it is a difficult job to accurately measure the reaction for a given stream. Here are some of the theoretical considerations involved in the problem and a table showing approximate reactions for various sizes of nozzles at different pressures.

THE reaction from a hose nozzle is familiar to every fireman and to a lesser degree to everyone who has held a garden hose. This reaction, which represents a considerable force in the case of heavy hose streams, is due to the acceleration of the water in the nozzle and is independent of whether the stream is hitting a wall or falling free in the air.

The reaction due to acceleration of water in a nozzle may be conveniently compared to the reaction due to the acceleration of an automobile on a level road. A substantial force must be exerted to accelerate the car, and the more quickly the car accelerates to a high speed, the greater must be the force. The situation in a hose nozzle differs from that in the case of an automobile because water in the nozzle is being continually accelerated; the force is acting continuously as new water comes through. The water passing through a 1⅛-inch nozzle under a pressure of 50 pounds per square inch accelerates from about 10 miles per hour in the 2½-inch hose to about 58 miles per hour leaving the nozzle. The 265 gallons discharged in one minute represents a weight of 2200 lbs., approximately the equivalent of a light automobile.



Assuming a nozzle attached to the side of a tank, as shown in the illustration above, the force tending to push out a plug in the nozzle would be equal to the static pressure due to the head of water, times the area of the nozzle, or

$$F = P A$$

Where F = force in pounds.
P = pressure in pounds per sq. in.
A = area of nozzle tip in square inches.

When, however, the plug is removed and the water flows through the nozzle, the force of acceleration comes into play, and the force is twice as great. This force, and its equal reaction tending to move the tank away from the direction of the nozzle, may be expressed as follows:

$$R = 2 P A$$

Where R is the reaction in pounds and the other terms are as previously defined.

This formula assumes zero initial velocity of the water, a perfect nozzle with a coefficient of 1.00, and that the nozzle discharge is horizontal. When a nozzle is attached to a hose line, the acceleration in the nozzle is less, because the water is moving in the hose, and instead of accelerating from zero velocity the acceleration applies only to the difference in velocity between the water in the hose and that leaving the nozzle. If a hose line were perfectly straight from hydrant to nozzle, the reaction would be exerted against the hydrant, but in actual practice there are always bends, and the reaction is felt by the men holding the nozzle.

The actual forces which firemen must withstand when handling a hose nozzle will be less than the theoretical reactions, because part of the reaction is taken up by the hose line which usually is in contact with the ground, or otherwise supported. The full theoretical reaction applies in the case of a nozzle directed horizontally from a ladder, tending to push the ladder away from the building.

A formula which has been widely used is as follows:

$$R = 1.5 P D^2$$

Where R = reaction in pounds.
P = nozzle pressure, lbs. per sq. in.
D = diameter of nozzle tip, inches.

This is sufficiently accurate for practical purposes within the range of fire department practice and has been checked by experiments made by R. W. Hendricks of Underwriters' Laboratories, Inc. The accompanying table has been computed from this formula.

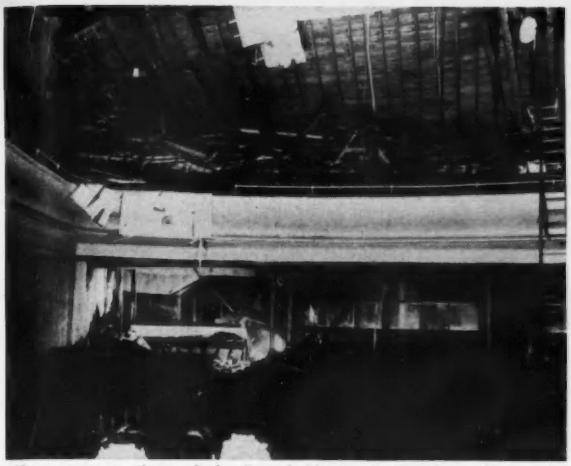
When a shut-off nozzle is closed the pressure at the nozzle increases to that of the source of supply. For example, in the case of a hose line of such length as to have a friction loss of 100 lbs. under conditions of operation with a 50 lb. nozzle pressure, the pressure at the pumper or hydrant will be 150 lbs., and the pressure at the nozzle will rise to 150 lbs. when the stream is shut off (unless the pumper or hydrant is shut down). If the nozzle is then suddenly opened, the momentary reaction will be that due to the initial static pressure. In the example just cited this would give a reaction of about 285 lbs. with a 1⅛-inch nozzle, as compared with 95 lbs. under the 50 lb. flowing pressure.

Impact of Hose Streams on Walls

WHEN a hose stream hits a flat wall at right angles the forward motion of the water is stopped. The force required to decelerate the water is the same as the force of acceleration in the nozzle, assuming no friction loss in the air. Thus the force exerted by the stream on the wall is theoretically equal to the nozzle reaction. Actually the force on the wall is less by reason of the retardation of the stream by air friction and the fact that all the water that leaves the nozzle does not reach the wall. Also, a stream seldom hits a wall exactly at right angles, and

NOZZLE REACTIONS, POUNDS

Nozzle Pressure, Lbs. per sq. in.	Nozzle Diameter ½"	¾"	1"	1⅛"	1¼"	1½"	1¾"	2"	2½"
25	9	21	38	47	59	84	115	150	234
30	11	25	45	57	70	101	138	180	281
35	13	30	53	66	82	118	161	210	328
40	15	34	60	76	94	135	184	240	375
45	17	38	68	85	105	152	207	270	422
50	19	42	75	95	117	169	230	300	469
55	21	46	83	104	129	186	253	330	516
60	23	51	90	114	141	203	276	360	563
65	24	55	98	123	152	219	299	390	609
70	26	59	105	133	164	236	322	420	656
75	28	63	113	142	176	253	345	450	703
80	30	67	120	152	187	270	368	480	750
90	34	76	135	171	211	304	413	540	844
100	38	84	150	190	234	338	459	600	938
125	47	105	188	237	293	422	574	750	1172
150	56	127	225	285	352	506	689	900	1406
175	..	..	..	..	..	591	804	1050	1641
200	..	..	..	..	..	675	919	1200	1875
225	..	..	..	..	..	759	1034	1350	2109
250	..	..	..	..	..	844	1148	1500	2344



Above are two views of the Strand Theatre in Brockton, Mass., where thirteen firemen lost their lives as a result of the collapse of the theatre roof during a general alarm fire on the morning of March 10, 1941. This was the greatest single tragedy to strike any fire department in the history of New England. One tenth of the entire Brockton fire department personnel was killed and many other firemen were seriously injured. The fire started in the furnace room and followed open ducts, upward to under balcony and roof spaces. The fire department appeared to have the fire checked when suddenly, without warning, the rear portion of the roof crashed upon the balcony from which firemen were directing hose streams. The picture at the left shows the interior of the theatre as viewed from the stage following the fire, and shows a portion of the collapsed roof structure resting on the balcony. The picture at the right shows firemen and other rescue workers on the balcony searching the debris for victims.

as the angle of impact diverges from the right angle the force exerted on the wall decreases. At close range the force on the wall approaches that of the nozzle reaction as a maximum. In actual practice the force of impact is usually less, decreasing with the length of the stream.

A HOSE line under pressure, if it could be freed of resistance due to contact with the ground or other objects, would tend to straighten itself. In a straight hose (or pipe) there are forces tending to stretch the hose in the direction of its length. This may be visualized by assuming a hose line closed at the end. In that case the force in pounds will be equal to the area of the hose in square inches times the pressure in pounds per square inch. The area of 2½-inch hose is approximately 5 sq. in. (more or less, depending upon the original diameter of the hose and the amount of its increase in diameter under pressure). Under this assumption with a pressure of 50 lbs. the force along the length of the hose would be 5 x 50=250 lbs. Under 100 lbs. pressure the force would be 500 lbs.

Both static and dynamic forces due to bends may to some extent be transmitted to a nozzle where there is a bend in the hose near the nozzle. Conditions vary so greatly in actual practice that calculations of the effect of these forces would have little practical application.

Salaries and Hours Worked In New England Fire Departments

THE United States Department of Labor recently published as Bulletin No. 684, a 31 page booklet entitled Salaries and Hours of Labor in Municipal Fire Departments. This volume deals with New England cities and is the first in a series of nine similar studies. The publication includes detailed information on salaries and the hours of work in effect on July 1, 1938, and descriptions of the systems used to stagger hours in order to provide continuous fire protection. There is also a study of vacations and of promotions.

The report shows that at the time the study was made more than 65 percent of the fire department privates in New England cities were receiving salaries of between $2050 and $2250 annually and 28 per cent were receiving salaries ranging from $1650 to $2050. These figures cover the salaries of 5,551 privates in fifty-four cities.

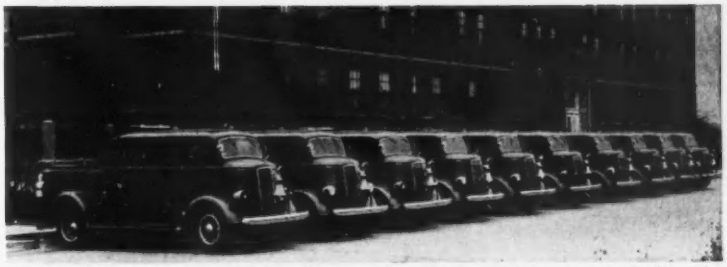
Seven out of eight fire department members in this same group of cities were working under the two-platoon system with an average of eighty-four hours on duty per week.

All of the fifty-four cities supplied sleeping quarters for the men on night duty and with but one exception provided the necessary beds, bedding, linen, and laundry. A large majority of the cities supplied helmets and more than half supplied rubber coats. However, only twenty of the fifty-four cities furnished the men with rubber boots and but seven gave them their uniforms.

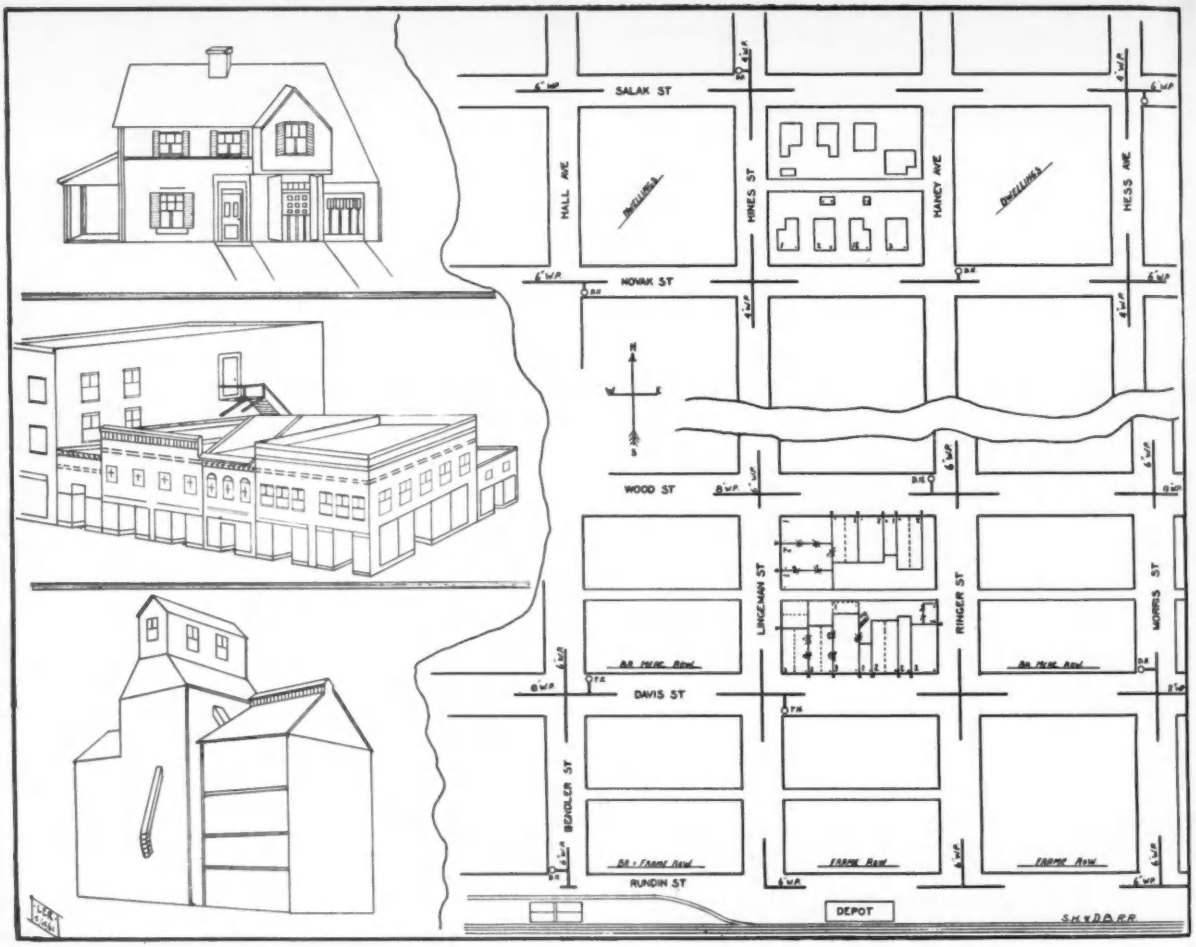
Only one of the cities covered by the study failed to give firemen vacations with pay. The average vacation period with pay was a little over two weeks with more than four-fifths of all firemen receiving exactly two weeks vacation.

When the total salaries are put on a per capita basis the report shows that the cost per person was $4.16 for the 13 cities of over 100,000 population, $3.62 for the dozen cities of 50,000 to 100,000 population, and $3.24 for the cities of 25,000 to 50,000 population. This higher per person cost in the larger cities is accounted for by the somewhat higher salaries paid, and by the larger number of firemen per 10,000 inhabitants.

For every 10,000 residents the fire departments of the larger cities had 19 employees as compared with 17 employees in the cities from 50,000 to 100,000, and 16 employees or the cities of 25,000 to 50,000 population.



A fleet of ten new cab-over-engine Mack squad wagons which have just been placed in service by the Chicago fire department. These trucks are equipped with turret nozzles capable of delivering 1200 gallons-per-minute at 130 pounds pressure. Recently designed take-offs are installed so that when the turret streams have brought a fire under control hand lines can be advanced into a building without disconnecting the lines in operation.



HOW WOULD YOU FIGHT THE FIRE?

A NOVEL approach to the problem of teaching fundamentals of fire fighting was undertaken at the one-day regional fire schools held in six Nebraska cities during February. The above illustration was given to each member of the school classes. The diagram, outlining a hypothetical fire fighting problem, was prepared with the compliments of the Fire Prevention Department of the Western Actuarial Bureau of Chicago, which assisted in the conduct of the regional schools. The sheet containing the above illustration announced that three hypothetical fires would be considered:

(a) A fire in a residence.
(b) A fire in a mercantile building.
(c) A fire in a grain elevator.

The problem is: How will you fight that fire? To aid in the solution of each of these three individual problems, the diagram was supplemented with the following instructions.

Some or all of the following suggested "elements of the problem," plus any others you may wish to add, should be specified to indicate the conditions under which you will operate. Use the approximate layout of streets and structures shown on the diagram. A blackboard with an enlarged sketch of the problem will facilitate the demonstration. (Try this method in your home department, on your own real problems, applying the actual elements and conditions. A good motto: "Fight all fires on the blackboard—FIRST!").

Time of day or night .....
Weather condition .....
Temperature .....
Wind direction .....
Wind velocity .....
Streets and traffic conditions .....
.....
Water mains and sizes .....
.....
Hydrants .....
Building: type and construction .....
.....
Occupancy and contents .....
.....
Exposures .....
.....
Alarm: reception and response .....
.....
Equipment and personnel responding .....
.....
Evidence and extent of fire on arrival .....
.....
Conditions (if any) affecting safety of occupants or other persons .....
.....
Your fire fighting procedure: Demonstrate and discuss .....
.....

The six regional schools at which the above plan was tried out were held February 17-26 in the cities of Norfolk, Valentine, Alliance, North Platte, Holdrege and Beatrice, Nebraska. A total of 361 firemen from 69 towns attended.

Horace M. Davis, State Fire Marshal and director of the state and regional fire schools, announces the 4th Annual state-wide school which will be held at Grand Island, April 2-4 inclusive.

TRAINING NOTES

Ohio's First Vocational Institute for Firemen

OHIO'S first Institute for the Promotion of Vocational Training for Firemen is scheduled to be held in the University at Kent, Ohio, April 8th and 9th, 1941. The Institute is to be conducted by Kent State University and the State Board for Vocational Education in cooperation with the Ohio Committee for the Promotion of Vocational Training for Firemen.

According to Chief C. A. Delaney, Division of Fire, Lakewood, Ohio, who is chairman of the committee on arrangements, an interesting program has been planned.

The Institute was suggested by the Dean of Extension Courses of the University and is intended to bring about interest in firemen's training above the plane of the ordinary fire school.

Ohio's program of vocational training for firemen operates under the jurisdiction of the State Board for Vocational Education, sponsored by Kent State University. An advisory committee of six members consists of representatives of various associations in the fire field. The committee has been in existence for two years. The program started with one fire department instructor. Through the cooperation of the Director of Vocational Education and the President of the University, sufficient funds have since been provided for the employment of three instructors. These instructors will handle classes in the art of firemanship as part of the program at the Institute the 8th and 9th of this month.

Iowa Fire School

THE 17th Annual Fire School is to be held at the Iowa State College, Ames, May 20-23. The fire service in National Defense will be the keynote.

Missouri

THE 9th Annual Missouri Central Fire School is scheduled to be held at Columbia, Mo., May 28, Chief T. F. Walden, in charge of the school announces. J. Burr Taylor of the Fire Prevention Department, Western Actuarial Bureau, will be chairman of the meeting.

Ulster County New York Starts Training Course

A FIREMEN'S training school for firemen of Ulster County, New York, started on Friday, March 21, 1941. The course will continue for ten Friday evenings and is to be followed by an examination covering material included in the weekly lectures and home study sheets. Diplomas issued by the University of the State of New York will be issued to the men passing the examination.

The training program for Ulster County is the result of a conference held at Kingston, N. Y., during February, and attended by officers of the Ulster County Volunteer Firemen's Association and the Chief of the County Board of Supervisors. Battalion Chief James J. Deasy, retired, of New York City, is conducting the training course.

Texas Training School

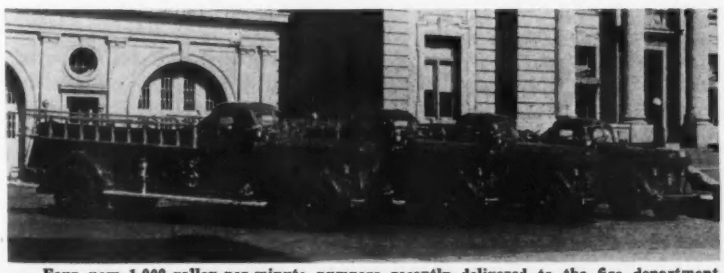
DURING the month of March Chief Frank Williams, Field Director of the Firemen's Training School of Texas A. & M. College visited twenty-four communities and instructed members of forty-eight fire departments.

Connecticut Police Survey Emergency Facilities

THE Connecticut State Police have completed a very excellent survey of emergency facilities within the state arranged by counties. This survey even includes details of the routes of carrier pigeons which could be used to carry messages in the event that power lines were put out of commission by any sort of disaster. It also lists many other items such as firearms, fire equipment, hospitals and ambulances.

New Jersey Defense Plan

A PLAN for Local Defense recommended by the New Jersey Defense Council has been approved by Governor A. Harry Moore and published under the title of Official Municipal Plan of Defense.



Four new 1,000-gallon-per-minute pumpers recently delivered to the fire department of Memphis, Tennessee, by Peter Pirsch and Sons Co., Kenosha, Wisconsin.

OF FIRE DEPARTMENTS WHO ARE SWITCHING OVER TO CLEAR WATER

INDIAN Fire Pumps

RUST PROOF 5-GAL. TANK

Patented

IT will pay to investigate INDIANS before you invest in new hand pumps. Departments all over the country are relying entirely on INDIANS for their small fires. No ruinous acids. Less water damage. No upkeep cost. No inspection. Carry by hand or slung on back. A trial will convince you. Rustproof steel or brass tank or complete unit chrome plated. Modernize YOUR department with INDIAN FIRE PUMPS this Spring.

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Carco-Conwhit Sales Co. 520 S.W. Pine St., Portland, Ore.

The Conwhit Co. Klamath Falls, Ore.

Mill & Mine Supply, Inc. 2700 4th Ave. S. Seattle, Wash.

Roy G. Davis Company 617 E. 3rd St., Los Angeles, Cal.

IN CANADA: Safety Supply Co., Toronto, Montreal, Vancouver

You're Invited to the 45th N.F.P.A. Annual Meeting at Toronto, May 12-16

DURING the week of May 12 members of the National Fire Protection Association from all parts of the United States and Canada will gather at Toronto, Ontario, for the 45th annual meeting. This will be the third time that the Association has held its meeting in the Dominion of Canada. It is particularly appropriate to hold the meeting in Canada this time when both Canada and the United States are lending their efforts towards meeting the war emergency.

The dominant note in the conference this year will, of course, be the vital problem of national defense. Every phase of defense will be discussed at the meeting by outstanding experts. Among the speakers that have already accepted invitations to participate in the program are the following: Colonel S. S. Wright, Fire Marshal of Nova Scotia, who will discuss the problem of blackouts and fire fighting under blackout conditions; Hugh H. Clegg, Assistant Director of the Federal Bureau of Investigation in Washington, who will discuss the various problems of sabotage protection and protection of industries; Superintendent Kemp of the Royal Canada Mounted Police who will discuss the measures taken to protect war industries in Canada; Honorable Gordon D. Conant, Attorney General of Ontario; Mr. Elliot Ness, Director of Public Safety of Cleveland, Ohio; Dr. W. O. Glidden, Federal Air Raid Precaution Officer for the Dominion of Canada; W. W. Dean, Fire Prevention Engineer of the U. S. Army, Washington; and Mr. Lewis Parkington, British Auxiliary Fireman from Coventry, England.

The meeting will open on Monday and Tuesday with a joint session of the Fire Marshals' Section of the National Fire Protection Association and the Canadian Fire Marshals Association. This group includes not only the state and provincial fire marshals, but fire prevention bureau chiefs of city fire departments. This group will have a special session on problems of civil defense and another one on control of arson. General sessions of the whole N.F.P.A. will be held beginning Tuesday evening and throughout Wednesday, Thursday and Friday, May 14, 15 and 16. Many of the important technical committees of the Association will present reports this year; among those coming up for action being the reports of the Committees on Fire Protection Engineering Education, Static Electricity, Model Electrical Law, Special Extinguishing Systems, Gases, Farm Fire Protection, Municipal Fire Apparatus and Protection of Records.

An always popular feature of the convention will be the motion picture program sponsored by the Visual Education Committee which will be held on Thursday evening, May 15. All of the latest fire pictures, including some remarkable pictures of incendiary bombs dropped over English cities, will be shown.

As a special feature at the convention this year a forum on the protection of industries during war time will be held and prominent fire protection experts from both the United States and Canada will discuss this vital problem.

The annual meeting of the National Fire Protection Association provides the opportunity for a gathering of men from fire departments, industries, fire insurance companies and others concerned with various phases of fire control to get together and to study and discuss the fire waste in all of its aspects.

A very large attendance is expected.

VOLUNTEER FIREMEN'S FORUM

To make the annual meeting especially interesting and attractive for members of the Volunteer Firemen's Section who are planning to attend, a Volunteer Firemen's Forum will be held on Thursday morning, May 15. This is to follow the lines of the first volunteer firemen's forum which proved so successful at the Atlantic City meeting last year. All volunteer or part-paid firemen are invited whether N.F.P.A. members or not.

The volunteer forum meeting is scheduled to start at 9:45 A.M. with Dr. David J. Price, U. S. Department of Agriculture, Vice-President of the N.F.P.A., presiding. The opening address will be on "Problems of Mutual Aid" by Warren Y. Kimball, Associate Editor of VOLUNTEER FIREMEN magazine. Chief Max Smith of South Porcupine, Ontario, will made an address on "Problems of Winter Fire Fighting." Professor W. Fred Heisler, Director, School of Technical Training, Oklahoma A. & M. College, Stillwater, Oklahoma, will discuss "Laying the Foundations for a Training Program." There will be adequate discussion periods following the various addresses and a number of distinguished fire department authorities will be introduced to the meeting.

While the Volunteer Firemen's Forum has been arranged for the convenience of volunteers who may wish to put in just one day, those coming are invited to attend other sessions of the meeting including the Fire Marshals' Section meetings on Monday and Tuesday.

Send your name and that of your department to the Executive Office and a complete program will be mailed to you.

Ontario Issues New Defense Training Manual

THE Civilian Defense Committee of the Province of Ontario has issued as its Handbook No. 2, a General Training Manual designed as a basic course of civilian defense training. The following chapter headings indicate the wide scope of the material covered in this 78 page volume: (1) General organization and control of civil defense; (2) Incendiary Bombs; (3) High Explosive Bombs; (4) War Gases; (5) Personal Protection Against Gas; (6) Protection Against Gas; (7) Elements of First Aid; (8) Transportation Services; (9) Public Utility Services. The booklet also contains information on the selection of instructors, and the training required by special services including the fire service.

Knoxville, Tenn., Plans To Sell Outside Aid

ANOTHER indication that cities cannot afford to give free fire protection service to non-taxpayers outside their city limits is contained in a news item to the effect that a committee of the Knoxville, Tenn., city council is working with local fire insurance agents in carrying out a plan to compel every property owner living outside the corporaton limits to carry sufficient insurance to pay the city for all runs of the city fire engines beyond the city limits. An owner living within two miles would be required to buy a $200 policy; from two to three miles a $300 policy. The annual cost would be between $1.88 and $2.88. The fire department plans to keep a card index on all policyholders; those not in the file would be denied service.

This report is an indication that the protection being furnished by hundreds of suburban volunteer fire departments throughout the country has a real cash value. As more and more cities put their over-the-line fire service upon a business, rather than a charity basis, suburban residents should come to appreciate the value of having their own volunteer fire department near home. In addition, city fire apparatus is seldom designed for rural or suburban fire fighting.

Chemical Extinguisher Association Elects

EVERETT A. WARREN, General Sales Manager of the General Fire Truck Corporation, Detroit, was elected President of the Chemical Fire Extinguisher Association for the year 1941 at a recent meeting held in Chicago. Other officers elected are: Vice-President—J. O. Binford, General Sales Manager, American-LaFrance-Foamite Corporation, Elmira, N. Y.; and Treasurer—Charles H. Stephens, President, Buffalo Fire Appliance Corporation, Buffalo, N. Y. In addition to the above officers, the following were elected to serve on the Board of Directors: R. C. Iddings, President, The Fyr-Fyter Company, Dayton, Ohio; and E. G. Weed, Vice-President, Pyrene Manufacturing Company, Newark, N. J.

1941 Municipal Year Book

FIRE department officials will be interested in the 1941 Municipal Year Book now available. Its 600 pages include such information as fire department personnel and salary data for cities over 10,000 population. For the same group of cities is presented the names of fire chiefs and other municipal officials, the number of pieces of fire apparatus, the average per capita fire loss in 1940, the average fire loss for five years, and loss per building fire. Other information of interest to fire officials are the number of fire stations, and amount of hydrant rental paid in 1940. Lists of important books and reports published on the subject of fire protection are included. The book covers other city departments with treatment equally complete.

The book may be obtained from The Municipal Year Book, 1313 East 60th Street, Chicago, Illinois, at a cost of $5 per copy.

"Safety in the World of Today"

An interesting new book for seventh, eighth and ninth grade pupils entitled "Safety in the World of Today" has just been published by the Beckley-Cardy Company, Chicago, at the cost of $1.20 per copy. The authors are Herbert J. Stack, Director, Center for Safety Education, New York University, Don Cash Seaton, State Director of Physical Education, Springfield, Ill., and Florence Slown Hyde, author of "Safety Programs and Activities." The book is well illustrated and includes among its thirteen chapters a chapter on Fire and Its Control and a chapter on Light, Heat and Power. In addition there is information on fire hazards on the farm and dangers of fireworks.

Hotel and Apartment Fires

THIS record of more than 1000 outstanding hotel, apartment and lodging house fires published in the January, 1941, N.F.P.A. *Quarterly* has been reprinted to meet the requests from members desiring this information in pamphlet form. The 56-page pamphlet is available at a cost of 35 cents per copy. Members will be sent a free copy upon request.

Water Bottle Starts Fire And Then Puts It Out

FIREMAN A. F. McCormick of St. Augustine, Florida, reports the following unusual occurrence. In response to an alarm the fire department found that an oil mop standing beside a five gallon bottle of water had become ignited from the sun's rays shining through the glass. When the mop blazed up the fire caused the bottle to break releasing water and thereby extinguishing the flames.

ANNOUNCEMENTS

The Riverside Hose Company No. 4 of Tarrytown, N. Y., wants to sell its old style, single breasted, high collar uniforms because the Tarrytown Fire Department has adopted a new style uniform. Any fire department interested in the possible purchase of the uniforms should write to James J. Taxter, Chairman, Uniform Committee.

The Carpenter Manufacturing Co., 179 Sidney Street, Cambridge, Mass., announce their new Type J2 Master-Light. The light has a five-inch reflector and uses two No. 6 or telephone-type dry cells. Encased in aluminum castings, the light weighs ten pounds with batteries. There is a bracket suitable for mounting on walls or cars.

The Stewart Warner Company of Canada is now manufacturing a British type of stirrup pump with 30 feet of hose. This costs $6.30 per unit and it is very well built.

A new 20-page bulletin entitled "Radial-Cone Bottom Elevated Water Tanks" just issued by the Chicago Bridge and Iron Company, contains illustrations of tanks ranging from 125,000 to 2,000,000 gallons capacity. The illustrations are arranged so that it is easy to compare different construction features such as cylindrical or structural columns, cone or ellipsoidal roofs, curved or straight shells, and spiral stairs and vertical ladders. A table of standard tank sizes is also included in the bulletin.

The "Model A" Super

Which Every Volunteer Fire Department Should Know About

Both 1 Quart and 1½ Quart Sizes

Every volunteer Fire Department should know the exclusive qualities of this first-aid extinguisher which experience shows should be the first to be carried into any fire because:—

FIRST:—
It is safe to use on electrical fires. Fyr-Fyter fluid is not only a powerful fire extinguishing fluid, but a most certain insulation—safeguarding the operator against serious injury or possible death from electrical contact.

AND SECOND:—
It is effective on concealed fires in walls or other "hard to reach" locations and is effective also on fires in greases, oils and the more flammable liquids.

SALESMEN WANTED

If you are interested in adding to your income by spare time work or in building a permanent business for yourself without investment in stock, fixtures, etc., write for our new Dealer's Plan to

THE FYR-FYTER COMPANY
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SPECIAL EQUIPMENT FOR FIRE DEPARTMENTS

NATIONAL
SF-21
FOAM GENERATOR
for running board mounting
Capacity—
1100 gallons of foam per minute
Write for details to:

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INCORPORATED
1633 Sansom St., Philadelphia, Penna.

The New HUXBAR

1. *Opens Inside Doors*
2. *Opens Outside Doors*
3. *Cuts Plaster*
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5. *Opens Windows*

—14 *Other Uses!*

THE Huxbar is the only appliance that can be used in so many ways. It eliminates the need for a number of costly separate salvage and rescue devices. Fire departments in large and small cities are enthusiastic about the jobs it does and the money it saves.

WRITE today for folder showing action photographs of the Huxbar in use by firemen and policemen. The Huxbar is sold through Fire Fighting Equipment and Municipal Supply Houses Everywhere.

Unlike other door openers, the Huxbar opens both outside and inside doors. 17 Other Valuable Uses! Write for details and prices—today.

WALTER C. HUXEL & CO.
230 E. Front Street, Cincinnati, Ohio

Fire Prevention Clean-Up Campaign

OUR National Defense Program calls for united effort by all citizens. We must use every opportunity to conserve as well as to manufacture. This year, 1941, should call for our best effort. The Spring Clean-Up Campaign in every way aids defense activities.

Municipalities have learned by valuable experience the benefits of a wholesome rejuvenation in preserving health, creating more optimistic surroundings and removing hazardous conditions which would ultimately lead to fire loss, sabotage, or conflagration.

The "Clean-Up" is a "check-up" of every condition which would lead to waste of human, civic and commercial values.

The safety of London and other cities now subject to attack depends upon the integral part played in its defense program by every individual. This is the type of a unified attack we should make against all forces which would deter our supreme effort in the present emergency.

Danger signals always remain, resulting from winter accumulations. Spring warmth will develop disease breeders which endanger community life. Homes, business establishments and industries require a complete inspection which is useless unless there is an immediate removal of all materials which hazard progress or protection. A wholesome feeling of optimism and encouragement is the general result of a municipal housekeeping.

This program should be planned for as early in the spring as possible—from March in the South, to May in the North. Every town and city should choose its own date, according to existing conditions.

Local committees may also secure assistance in arranging campaigns by writing to Mr. T. Alfred Fleming, Chairman, N.F.P.A. Committee on Fire Prevention and Clean-Up Campaign, 85 John Street, New York, N. Y. An 8-page booklet entitled Fire Prevention Clean-Up Campaign may be obtained from the N.F.P.A. Executive Office, 60 Batterymarch Street, Boston, Mass.

HOME INSPECTION REPORT BLANK FOR SCHOOL CHILDREN

The model form shown below has been used in Cincinnati and will serve as a basis for designing a blank to be used in Fire Prevention-Clean-Up Campaigns. The blanks should be printed in quantity and distributed to the schools. Teachers will pass them out to the children and collect them as determined by those in charge.

Fire Prevention Clean-up Campaign

Week Beginning ....., 1941

NOTE: In filling out this report check the items accomplished this year to date.

We have cleaned up our:
Check
- ..... Back yard
- ..... Front yard
- ..... Vacant lot
- ..... Basement
- ..... Attic
- ..... Porch
- ..... Garage
- ..... Electric Globes
- ..... Lighting fixtures and lamps
- ..... Furnace
- ..... Street name signs

We have painted our:
Check
- ..... House
- ..... Porch or stairs
- ..... Walls or woodwork
- ..... Floors (or varnished)
- ..... Fences
- ..... Out-buildings
- ..... Screens
- ..... Roofs
- ..... Walls (papered or kalsomined)
- ..... Walls (cleaned)
- ..... Cellars (or whitewashed)
- ..... Furniture
- ..... House gutters (or cleaned)

We have planted and beautified:
Check
- ..... Metal refuse containers
- ..... Flower boxes
- ..... Flower garden
- ..... Vegetable garden
- ..... Grass seed
- ..... Shrubbery
- ..... Trees
- ..... Rock garden
- ..... Removed rubbish piles
- ..... Trimmed trees
- ..... Removed dead trees and stumps

We have:
Check
- ..... Destroyed insect pests
- ..... Destroyed rats
- ..... Repaired fences
- ..... Repaired porches and steps
- ..... Repaired screens
- ..... Removed old signs
- ..... Replaced electric bulbs
- ..... Provided metal refuse cans
- ..... Emptied ash cans
- $ ..... Sold junk, or paper (amount)
- ..... Repaired sidewalks
- ..... Repaired water faucet leaks
- ..... Repaired roofs

Pupil's Name ..... Parent or Guardian .....

Address ..... School .....

Butler, Pa., Has Big Fire

ONE of the largest fire losses reported in the United States so far this year occurred in the business district of Butler, Pa., early on the morning of Sunday, February 9th. The three-story brick building involved housed numerous stores with apartments above. According to Chief I. S. Zorb of the fire department, the fire appears to have started in a waste paper chute. Aided by gas from a broken main and feeding on the stock of a hardware store, the fire spread to such an extent that the fire department had a difficult job of holding the fire to the building of origin. There were no fire doors or other fire stops to aid in controlling the fire. As is often the case with large fires, this blaze was not discovered until a truck driver passing the building saw the flames through the windows of a drug store in the block. This store was having a sale at the time and the windows were painted to prevent the public from looking in. This fact is believed to have seriously delayed the discovery of the fire. The loss was more than $264,000.

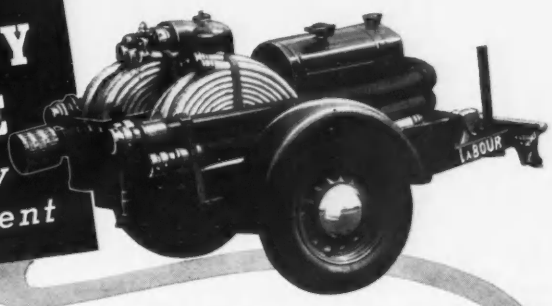
Safety Manual For Service Stations

THE Department of Accident Prevention of the American Petroleum Institute, 50 West 50th Street, New York, N. Y., has recently published an extremely interesting and well illustrated Accident Prevention Manual on Operation of Service Stations. Designated API Accident Prevention Manual No. 5, its 29 pages include sections on fire prevention, fire extinguishing equipment, and fire fighting, as well as sections covering other accident hazards found at filling or service stations. The price is 25 cents.

President of Mine Safety Appliances Company Dies

JOHN T. RYAN, 57, President and co-founder of Mine Safety Appliances Company, Pittsburgh, died during February at Miami, Florida. Mr. Ryan was in charge of the mine rescue and safety and mine lamp testing division of the United States Bureau of Mines from 1911 to 1914. Seeing the need for more adequate safety equipment, he and George H. Deike, also of Pittsburgh, founded the Mine Safety Appliances Company in 1914. The following year he worked with inventor Thomas A. Edison on the design and development of the Edison Safety Cap Lamp now used in mines throughout the world. He was a charter member of the National Mine Rescue Association.

A UTILITY PIECE for any department



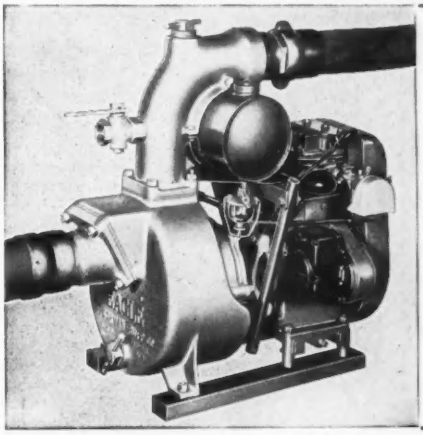
Large or small, metropolitan or rural, every fire department can make good use of this LaBour Fire Trailer. As an extra piece for farm fires, as a booster pump, or for pumping out basements after fires, its flexible utility answers a multitude of needs.

The LaBour centrifugal pump is inherently self-priming without any attachments or manipulation. Dirty water—even twigs and sand—will not harm the pump. It delivers 150 gallons per minute against 100 lbs. pressure, and operates anywhere from its own direct-connected engine.

Trails any passenger car, and is light enough to be moved by one man on smooth ground. Write for your free copy of Bulletin 47.

LABOUR FIRE TRAILER

THE LABOUR CO., Inc.
Elkhart, Ind., U. S. A.



Get water to your pumper with this
PORTABLE BOOSTER PUMP
Pumps from Well - Lake - Stream, through 200 feet of fire hose.

- Easily carried by two men
- Occupies but little space
- The price is surprisingly low

DISTRIBUTORS WANTED

Descriptive Circular Sent On Request

THE GORMAN-RUPP CO.
Mansfield, Ohio

HAS YOUR DEPARTMENT DISCUSSED MEMBERSHIP IN THE VOLUNTEER FIREMEN'S SECTION RECENTLY?

If ten men in your department would chip in and pay one dollar per man per year, the department could enroll in our Volunteer Firemen's Section and receive all the regular literature of the Association, and the ten men would receive VOLUNTEER FIREMEN regularly. Less than ten cents a month per man would entitle your members to receive the professional journal for volunteer firemen. Just list the names on a sheet of paper and mail it to The National Fire Protection Association, 60 Batterymarch Street, Boston, Mass., with your check for $10.00.

CAIRNS

"STREAMLINER"

A DISTINCTIVELY NEW

HELMET

(Pat. Pending)

Built out in front to give a solid backing for the shield; triply insulated against electric current; fitted with the famous CAIRNS CUSHION LINING with a new type of suspension that absorbs the shocks of falling debris; furnished complete with earlaps and neck protector, for cold weather; priced as low as $6.50. Write for the "Streamliner" circular and Catalog 30C, listing everything in the way of firemen's personal equipment.

CAIRNS & BROTHER

444 Lafayette Street New York

FEDERAL VERTICAL SIRENS

are known for

- DEPENDABILITY
- HIGH QUALITY
- ADEQUATE POWER

made in capacities from 1 to 7½ hp.

Federal Electric Co., Inc.

"Siren Headquarters"

8717 S. State St. Chicago, Ill.

$10.00-$3.00-$2.00 EACH MONTH

PYRENE PRIZE LETTER CONTEST

YOU have probably been present at numerous fires where approved fire extinguishers have been successfully used. Every month the above cash prizes are paid out to those whose letters contain the best stories. More fires are put out with fire extinguishers than by any other means. The stories reported in this contest show the value of having an extinguisher handy.

It's the story we want, not letter writing ability. Get the facts down on paper and we will attend to any rewriting necessary to get the story into the space available in these columns. Be sure to give your fire department connection when writing as the contest is limited to fire department or fire brigade members.

The contest is sponsored cooperatively by the Pyrene Manufacturing Company of Newark, N. J., and VOLUNTEER FIREMEN to bring forth the lessons learned from actual fires of the value of fire extinguishers.

FIRST PRIZE—$10.00

WALTER REDMAN, *Chief*
Fire Department,
Flin Flon, Manitoba

Out Before Alarm Was Given

Upon entering our fire hall after supper I noticed a soda-acid 2½-gallon extinguisher standing behind the door. The label attached was that of the Flin Flon Flour and Feed Store. The extinguisher was empty and was immediately recharged as we recharge and record all privately owned soda and acid extinguishers in town. Early in the morning I hied me to the feed store to investigate. I found that an employee had been operating a feed chopper powered by a gasoline engine. The proprietor said he heard the engine shut down and believed that chopping was done for the day. Looking that way a few seconds later he saw that the operator had a fire on his hands. Rushing for the extinguisher he keeps in the kitchen in cold weather to prevent its freezing (the owner lives on the premises) he up-ended it and in no time at all the blaze was out. He then called to his wife who had rushed to phone the fire department and told her that it was all over. As central had not asked "number please" she hung up the receiver. The feed store has a large hay shed near by and is bordered by three lumber yards and several coal sheds, so the extinguisher saved a possible conflagration.

SECOND PRIZE—$3.00

CREED BRANHAM, *Chief*
Fire Department,
Monterey Park, California

Demonstration Fire Too Real

We were giving a demonstration on the evils of home dry cleaning to a woman's club. There were about eighty women present in the small frame club house. In the demonstration we put a wad of cotton in a six foot trough and saturate it with gasoline. The gasoline vapors go down the trough and become ignited by a candle at the bottom end of the trough. The fireman helping me poured so much gasoline on the cotton that it ran down the trough and overflowed on the floor. The lighted candle set fire to the gasoline and we had a good fire started. There was no phone in the building with which to call help but we carried a 1-quart carbon tetrachloride extinguisher with us. With a few strokes of the extinguisher I had the fire out. See the embarrassment it saved me.

THIRD PRIZE—$2.00

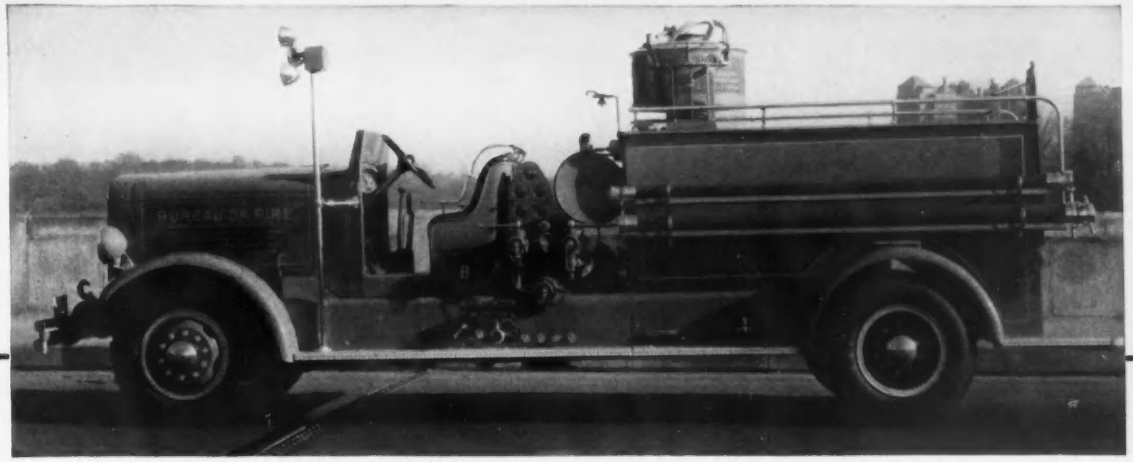
CARL GREGOR, *Chief*
Fire Department,
Skykomish, Washington

Road Oil Fire

One day last summer my helper and I were heating asphalt road oil in a barrel behind the town courthouse and in front of the town garage and shop. There was about 50 feet between the buildings and a house on each side of the town lot. As I was leaving to see how my helper was coming along on the street work, I put a few sticks of wood on the fire under the barrel. When I returned the oil had become too hot and was spurting out of the 1¼ inch top opening like a spray of water. The oil ignited and was spreading down hill toward the courthouse. I rushed to the fire truck and got a carbon dioxide extinguisher and started fighting the fire from the bottom of the slope. My partner came and I handed the extinguisher to him. Taking a shovel I stepped close to the barrel and pulled the valve away from the fire with the oil still spurting. My partner had the fire out about the same time and just as it was within a couple of feet of the courthouse. I received burns on my hands and face but I hope others will benefit by my experience—and thanks to the carbon dioxide extinguisher.

CONTEST RULES

1. Contestants in the Pyrene Prize Letter Contest must be members of their local fire department.
2. Letters are to describe actual experiences where an approved fire extinguisher of any make has saved lives or property.
3. Trade names may be used but will be deleted in publication. Publishers reserve the right to edit winning letters to permit publication.
4. Each contestant automatically vouches for the truth of the facts presented from his own or others' experience.
5. Only one letter may be submitted each month.
6. Letters must be legibly written in ink or typewritten on white paper, one side only. Preference will be given to letters not over 250 words in length.
7. Letters received after the 8th day of the month will be judged in following month's competition.
8. Monthly prizes in cash will be: 1st, $10.00; 2nd, $3.00; and 3rd, $2.00.
9. Address contest letters to Pyrene Prize Letter Contest, National Fire Protection Association, 60 Batterymarch St., Boston, Mass.



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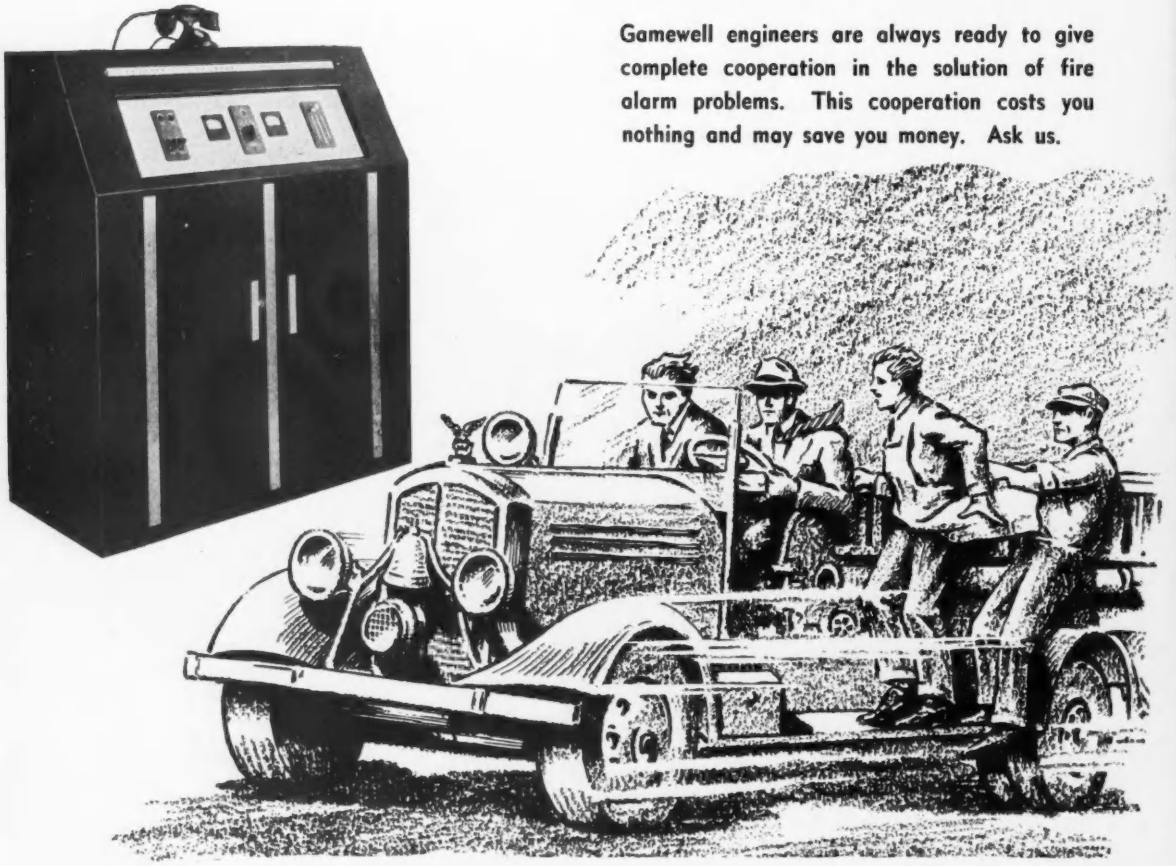

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